

MIKHAYLOV, V.V.; IVANOV, N.N., prof., red.; GRONDA, V.I., red.;
YASHUKOVA, N.V., tekhn. red.

[Construction of bituminous pavements] Stroitel'stvo do-
rozhnykh pokrytii s primeneniem bitumov. Pod red. N.N.
Ivanova. Moskva, Rosvuzizdat, 1963. 42 p.

(MIRA 16:12)

(Pavements, Bituminous)

MIKHAYLOV, Viktor Vasil'yevich, doktor tekhn. nauk, prof.;
GORYACHEVA, T.V., red.; GOL'BERG, I.M., tekhn. red.

[Prestressed concrete structures; theory, design and
selection of sections] Predvaritel'no napriazhennye zhele-
zobetonnye konstruktsii; teoriia, raschet i podbor sache-
nii. Moskva, Gosstroizdat, 1963. 606 p. (MIRA 17:1)

MIKHAYLOV, V.V., doktor tekhn. nauk, ~~prof.~~, red.; GLEZAROVA, I.L.,
red.; KUZNETSOVA, M.N., red.; KASIMOV, D.Ya., tekhn. red.

[Manufacturing prestressed reinforced concrete elements]
Proizvodstvo predvaritel'no napriazhennykh zhelezobeton-
nykh konstruktsii. Pod red. V.V.Mikhaylova. Moskva, Gos-
stroizdat, 1963. 214 p. (MIRA 17:3)

1. Moscow. Nauchno-issledovatel'skiy institut betona i
zhelezobetona.

MIKHAYLOV, V.V., doktor tekhn. nauk; GITMAN, F.Ye., kand. tekhn.
nauk; KARAKOVSKIY, A.K., inzh.

[Apartment houses of a frame-panel system] Zhilye zdaniia
ramno-panel'noi sistemy. Moskva, Stroiizdat, 1964. 101 p.
(MIRA 18:3)

GOSTOBRIDZE, G.G.; VASIL'YEV, A.P.; ~~BLAKHUYLOV, V.V.~~; FEREL'SHTEIN,
N.L.[deceased]; SHISHKIN, R.G.; YAKUBOVSKIY, B.V.;
MITHNIK, G.S., kand. tekhn. nauk, nauchn. red.; FUZNETSOVA,
M.N., red.

[Prestressed reinforced concrete; based on materials at the
Fourth International Congress on Prestressed Reinforced
Concrete Structures held at Rome and Naples in 1962] Pred-
varitel'no priyazhennyy zhelezobeton; po materialam IV
Mezhdunarodnogo kongressa po predvaritel'no napriazhennym
zhelezobetonnym konstruktsiyam (FIP), Rim-Neapol', 1962 g.
Moskva, Stroizdat, 1964. 281 p. (MIRA 17:10)

25(2)

SOV/32-25-4-62/71

AUTHOR:

Mikhaylov, V. V., Head of the Laboratory of the Mechanical
Shop of the Moscow Subway

TITLE:

On the Reconstruction of the Diagrammatic Instrument of the
Universal Testing Machine R-5 (O rekonstruktsii diagrammnogo
apparata universal'noy ispytatel'noy mashiny R-5). (With
Reference to the Article by D. A. Pomazan, Published in Nr 10
of the Periodical "Zavodskaya laboratoriya" of the Year 1958)
(Po povodu stat'i D. A. Pomazana, opublikovannoy v No 10
zhurnala "Zavodskaya laboratoriya" za 1958 g.)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol. 25, Nr 4,
p 505 (USSR)

ABSTRACT:

D. A. Pomazan's suggestion to use, with the diagrammatic
instrument of the machine R-5, a reducer which rigidly connects
the revolving cylinder with the revolutions of the shaft
of the manual drive of the machine must be regarded as being
wrong. In this case the lowering and lifting of the upper
clamp of the machine under the effect of the load is not
considered in the diagram. The turning of the cylinder is
therefore but proportional to the distance due to the lower

Card 1/2

On the Reconstruction of the Diagrammatic Instrument of the Universal Testing Machine R-5. (With Reference to the Article by D. A. Pomazan, Published in Nr 10 of the Periodical "Zavodskaya laboratoriya" of the Year 1958) SOV/32-25-4-62/71

clamp, this distance not corresponding to the straining of the sample. At the below-mentioned institute a change of the rotating speed of the cylinder was achieved by means of a block of detachable pulleys of different diameters on which the steel cable for the weight runs (Fig). On account of the fact that the cable is attached to both clamps no distortion of the strain diagram can occur. With reference to both Mikhaylov's and Pomazan's papers the editors say that both reconstructions exhibit disadvantages: Pomazan's design shows the shortcoming referred to by Mikhaylov, while Mikhaylov's suggestion will result in a distortion of the diagram in cases in which a deformation of the steel cable and its gliding exercise their influence. There is 1 figure. Laboratoriya mekhanicheskogo zavoda Moskovskogo metropolitena (Laboratory of the Mechanical Shop of the Moscow Subway)

ASSOCIATION:

Card 2/2

ARKHANGEL'SKIY, Nikolay Konstantinovich, insh.; GLAZKOV, Aleksandr
Nikolayevich, insh.; IVANKOV, Pavel Aleksandrovich, insh.;
MIKHAYLOV, Vran Vagranovich, kand.tekhn.nauk; MOVSESOV,
Nerses Savadovich, insh.; MOTSOKEHIN, Boris Iosifovich, insh.;
VRONSKIY, L.N., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Handbook on oil field electric equipment] Spravochnik po
neftepromyslovoi elektrotekhnike. By N.K.Arkhangeli'skii i dr.
Moskva, Gos.nauchno-tekhn.isd-vo neft. i gorno-toplivnoi lit-ry,
1961. 472 p. (MIRA 14:12)
(Oil fields--Electric equipment)

S/573/61/000/005/010/023
D201/D305

AUTHORS: Mikhaylov, V.V. and Ogandzhanyants, V.I.

TITLE: Arrangement for introducing input information to the programmed control system of an automatic gas-cutting machine

SOURCE: Akademiya nauk SSSR. Institut elektromekhaniki. Sbornik rabot po voprosam elektromekhaniki. no. 5, Moscow, 1961. Avtomatizatsiya, telemekhanizatsiya i priborostroyeniye, 107 - 116

TEXT: The programming 2nd order digital analogue installation for the control of an automatic gas-cutting machine as designed by the Institut elektromekhaniki AN SSSR (Institute of Electromechanics AS USSR) consists of the following main units: 1) Arrangement for introducing the input information; 2) Computer with control circuits; 3) The coordinate conversion unit with control circuits; 4) Output channels commutating circuit with registration control. In the present article, a description is given of the arrangement for introducing the initial data into the integrating computer (two Card 1/3 ✓

Arrangement for introducing ...

S/573/61/000/'005/010/023
D201/D305

sonic storage unit and at a signal from the computing unit, during the process of curve reproduction, are applied to a magnetic tape. The memory is built around ferrite elements with a rectangular hysteresis loop. Storage of the number is carried out directly from the read-out device or from the converter of the counting system. The time of processing initial data at the input is determined by the speed of the electromechanical transmitter and is 9 sec., which makes it possible to prepare the programming for the following section of the profile during programming of the preceding one. There are 5 figures, and 2 tables.

✓

Card 3/3

Arrangement for introducing ...

S/573/61/000/005/C20/023
D201/D305

count-of-five decimal numbers), displacement pick-up (two count-of-eight decimal numbers) and the coordinate converter (two-count-of-six decimal numbers). All initial information necessary for programming a part of the profile, is perforated on a standard five-track telegraph tape. All data introduced directly into the computer units are in the form of binary numbers with a maximum count of 26. The block diagram for introducing initial information consists of the following units: Read-out commutator (step-by-step switch), counting system converter, memory and command writing unit. The read-out utilizes the standard start-step transmitter type T-50 and reads the information from the tape at a rate of 5-9 lines per sec. The commutator is used for connecting the output of read-out to the memory, counting system converter and to command writing unit. The conversion of counting system is accomplished by introducing 1, 10, 100 etc. recorded in binary system in parallel as many times as there are units in the corresponding count of a decimal number. The technical commands, in numbers up to 15 are recorded on the tape by the code by 3 from 7 and occupy 30 lines. After being read from the tape, the commands are introduced into an ultra-

Card 2/3

MIKHAYLOV, V.V.

Evaluation of the reliability of a surface interpolator. Sbor.
rab.pov.vop.elektromekh. no.7:261-269 '62. (MIRA 16:1)
(Machine tools—Numerical control) (Automatic control)

ACCESSION NR: AT4015856

S/2573/63/000/009/0038/0045

AUTHOR: Ignat'yev, M. B.; Mikhaylov, V. V.

TITLE: A method for checking and correcting computer performance in reproducing a prescribed function

SOURCE: AN SSSR. Institut elektromekhaniki. Sbornik rabot po voprosam elektromekhaniki, no. 9, 1963. Avtomatizatsiya, telemekhanizatsiya i priborostroyeniye (Automation, telemechanization and instrument manufacture), 38-45

TOPIC TAGS: computer, computer performance, function reproduction, error correction, analog computer, redundancy

ABSTRACT: Existing methods which improve the reliability of computer operations either cannot be adapted to control the correctness of computer performance or suffer from stability problems. This new method can be used to check and correct the performance of analog, discrete or hybrid computers designed to reproduce a given mathematical function for various values of parameters. It regards the given function of a cross section of multi-dimensional surfaces and programs the computer to solve for all these surfaces simultaneously. The correctness of the solution of the simplest surfaces gives an indication of the correctness of the solution of the entire problem. If the control function is a simple

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ACCESSION NR: AT4015856

sum of variables, it is always possible to detect the drift of the function mapping point beyond the boundaries of one control plane. A further improvement is possible by constructing another control plane which is orthogonal to the first one. A further increase in redundancy may be achieved if each of the variables is represented as some function of two or more new variables and simple control functions are constructed which consist of these new variables. The results of the checking operation can be used to correct the error. The errors which occur when the control functions are not satisfied can be regarded as new variables. When the equivalent system of differential equations is constructed for this extended system, the set of coefficients can be selected so that the errors in the control functions tend to be minimized. The errors in separate variables of the reproduced function can be corrected by assuming that the errors in all variables are equally likely to occur and that the probability of simultaneous errors in two variables is small. From a proper combination of disturbed control functions, the error in the variable of the reproduced function may be detected. The method can also determine the block of the computer in which the error has occurred. The control equations may be full differentials of the sum of control variables. Using a sufficient number of additional variables and choosing different combinations of control functions for each computer block, a variable degree of correction can be achieved for blocks with different probabilities of occurrence of error. The equation of the reproduced function itself can be used as a control equation. In this case the control function is nonlinear but cumulative error is absent and no errors remain undetected.

Card 2/3

ACCESSION NR: AT4015856

Orig. art. has: 13 formulas, 1 table and 2 figures.

ASSOCIATION: Institut elektromekhaniki: AN SSSR (Institute of Electromechanics AN SSSR)

SUBMITTED: 00

DATE ACQ: 20Dec63

ENCL: 00

SUB CODE: DP

NO REF SOV: 002

OTHER: 001

Card 3/3

L 8428-65 EWT(d)/EWT(1) Pg-4/Pk-4/Pl-4/Po-4/Pq-4 IJP(c)/AEDC(a)/ASD(a)-5/
AFETR/ASD(d)/AFHDC/ESD(dp)/RAEM(t) BC/JT
ACCESSION NR: AP4048384 8/0105/64/000/007/0085/0087

AUTHOR: Loginov, S. I. (Candidate of technical sciences); Mikhaylov, V. V. B
(Candidate of technical sciences)

TITLE: All-Union Conference on Automatic Control and Systems for Exciting Synchronous Motors

SOURCE: Elektrichestvo, no. 7, 1964, 85-87

TOPIC TAGS: automatic control, synchronous motor, synchronous machine, electric engineering, electric motor, electric machine, electric industry, electric apparatus

Abstract: Brief reviews are presented of 20 papers presented at the April 1964 conference organized by the Division of Power and Electrical Apparatus of the State Committee for Coordination of Scientific Research Work of the USSR, Institute of Electromechanics, and the Moscow Branch

synchronous machines based on semiconductor and ion converters, and also

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L 8428-65

ACCESSION NR: AP4048384

to the use of contactless synchronous motors with rotating semiconductor rectifiers. The conference adopted recommendations detailing the desired objectives of the application of automatic control of excitation and outlining the principles to be followed in particular fields of application. Specific recommendations were made as to the type of system best suited to installations with loads of differing magnitudes and

WITH INTRODUCTORY AND SUMMARIZING ADDRESSES BY PROFESSOR I. A. SYTOVSKIY
nikov, Doctor of Technical Sciences.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, EE

NO REF SOV: 000

OTHER: 000

JPRS

Card 2/2

L 00368-66 EWT(d)/EED-2/EWP(1) IJP(c) BB/GG/GS

ACCESSION NR: AT5013563

UR/0000/64/000/000/0161/0172

AUTHOR: Ignat'yev, M.B.⁴⁴; Mikhaylov, V.V.⁴⁴

TITLE: The establishment of programming devices with controls and corrections ³⁴₅₄₁

SOURCE: AN SSSR. Institut elektromekhaniki,^{16C, 44} Avtomatika, telemekhanika i priborostroyeniye (Automatic control, remote control, and instrument manufacture). Moscow, Izd-vo Nauka, 1964, 161-172

TOPIC TAGS: error correction, computer calculation, computer component

ABSTRACT: The authors previously proposed (Voprosy elektromekhaniki, no. 9, 1963, AN SSSR; Vychislitel'naya tekhnika v avtomaticheskoy upravlenii, AN SSSR, 1963) the incorporation of redundancies into the problems under consideration which would permit the control and correction of computer solutions if they contain errors caused by the incorrectness of the calculational algorithms, and by random machine component failures. In contradistinction to the known approaches the proposed approach allows the control and correction of the solution as a whole and may be used in machines with series or parallel action of the discrete, analog, or combined types. The present paper investigates in detail the establishment of devices with controls and corrections

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ACCESSION NR: AT5013563

intended for the reproduction of functions specified by finite equations. Orig. art. has:
40 formulas, 2 figures, and 1 table.

ASSOCIATION: none

SUBMITTED: 24Oct64

ENCL: 00

SUB CODE: DP, MA

NO REF SOV: 005

OTHER: 001

L 00367-66 EWT(d)/T/EED-2/EWP(1) IJP(c) BB/GG/GS

ACCESSION NR: AT5013565

UR/0000/64/000/000/0183/0188

AUTHOR: Mikhaylov, V.V. ⁴⁴

TITLE: Code method for the detection of errors and defective units ⁴⁰_{B+1}

SOURCE: AN SSSR. Institut elektromekhaniki ⁴⁴ Avtomatika, telemekhanika i priborostroyeniye (Automatic control, remote control, and instrument manufacture). Moscow Izd-vo Nauka, 1964, 183-188

TOPIC TAGS: error correcting code, computer coding, ^{46, 44} digital computer, error correction, computer input unit

ABSTRACT: In his earlier papers (M.B. Ignat'yev, V.V. Mikhaylov, Voprosy elektromekhaniki, Sb., AN SSSR, no. 9, 1963, Avtomatika, telemekhanika i priborostroyeniye, Symp. Moskva, 1964, pp. 161-172) the author introduced many of the variables of the problem under study as code elements. The redundancy is introduced by the incorporation of additional variables enlarging the dimensionality of the problem, and the needed properties of the code are obtained by the imposition on the variables of auxiliary functional relationships embodying the control conditions. In the same papers the author showed how to utilize errors under the specified control conditions for the correction of the computer solutions of the problem under consideration. The present paper

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ACCESSION NR: AT5013565

investigates in more detail some problems of the synthesis of instruments needed for the determination of the variable which admitted the error and the unit of the device generating the error. The usual assumptions of the coding theory are used (stating that the error probability of all variables is equal and that the simultaneous errors in two variables are very unlikely.) The control conditions are then specified in such a manner that from the combination of errors within them one can determine the variable allowing the error to appear. Orig. art. has: 14 formulas and 1 figure.

ASSOCIATION: none

SUBMITTED: 24Oct64

ENCL: 00

SUB CODE: DP

NO REF SOV: 004

OTHER: 002

DR
Card 2/2

L 45651-65 EWT(1)/EWA(h) Feb 66

ACCESSION NR: AP5013167

UR/0144/64/000/012/1475/1482

AUTHOR: Karinskiy, Yu. I.; Mikhaylov, V. V.

TITLE: Contactless response element for transformer relays 25

SOURCE: IVUZ. Elektromekhanika, no. 12, 1964, 3475-1482

TOPIC TAGS: electric transformer, electric relay, electronic rectifier

Abstract: The article deals with the application problems in certain types of controlled rectifier devices used in conjunction with transformer relays. The volt-ampere and the response characteristics are discussed and the design parameters are determined on this basis. Specifically, two models of such relays with contactless response elements are described: DZF-1 with time delay and RMT-562 which is a current-unbalance relay; both are used for transformer protection and have so far proved successful in operation. They are considered superior to electromagnetic type elements with regard to size, power consumption, life, resistance to shock and vibration. Orig. art. has 7 figures.

ASSOCIATION: none

SUBMITTED: 15Jul64

ENCL: 00

SUB CODES: EO, EE

NO REF SOV: 004

OTHER: 002

JPRS

Card 1/1 7/6

L 42218-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) JT/GD/BC

ACC NR: AT6008924

SOURCE CODE: UR/0000/65/000/000/0074/0085

AUTHOR: Ignat'yev, M. B.; Mikhaylov, V. V.; Perovskaya, Ye. I.

ORG: none

TITLE: Synthesizing a checking and correcting programmer for machining surfaces

SOURCE: AN SSSR. Institut elektromekhaniki. Avtomaticheskiye i teleinformatsionnyye sistemy (Automatic and teleinformation systems). Moscow, Izd-vo Nauka, 1965, 74-85

TOPIC TAGS: automatic programing, nonlinear programing, metal cutting

ABSTRACT: General considerations are presented re a programing system with continuous linear checking and correction which is intended for controlling automatic metal-cutting machines. The surface being machined is regarded as a controlled function. A system of integral equations is set up, and a block diagram of a programmer capable of solving it is shown. The synthesis of a system

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L 42218-66

ACC NR: AT6008924

with two checking planes is briefly considered. Operation of the above programmer was simulated on a digital computer with 10-digit integrator registers. Without correction, the programmer accumulated (over 25 cutter travels) an error of 15 units; with the linear checking and correction, the error was 2.5 units. Orig. art. has: 2 figures and 18 formulas.

SUB CODE: 13, 09 / SUBM DATE: 14Jul65 / ORIG REF: 006 / OTH REF: 008

Card 2/2 af

L 42187-66 ENT(1) RG/CD
ACC NR: AT6008925 SOURCE CODE: UR/0000/65/000/000/0085/0092
AUTHOR: Mikhaylov, V. V. 41
ORG: none E+1
TITLE: Methods for enhancing noise rejection in computing processes
SOURCE: AN SSSR. Institut elektromekhaniki. Avtomaticheskiye i
teleinformatsionnyye sistemy (Automatic and teleinformation systems). Moscow,
Izd-vo Nauka, 1965, 85-92
TOPIC TAGS: computer research, computer theory, computer design
ABSTRACT: Treating the computer reliability, algorithmic errors, and
programing errors as components of the error of the entire computing process,
some general approaches to the synthesizing noise-immune computing processes
are clarified. Computing structures are divided into two groups: (1) Without
correct-functioning feedback and (2) With correct-functioning feedback. The first
group (e.g., series-parallel connections of capacitors, resistors, etc.) requires

Card 1/2

L 42189-66

ACC NR: AT6008925

great redundancy and can only reduce the error in the equivalent-circuit operation. The second group includes computers with duplicated units operating on the majority principle. These methods permit enhancing the reliability of algorithmic structures of computers. An incomplete or indirect evaluation of the quality of operation permits simpler check devices and greater check efficiency. Noise-immune coding is also briefly considered. The article is a short review based on 1946-64 Soviet and Western published sources. Orig. art. has: 1 formula.

SUB CODE: 09, 12 / SUBM DATE: 14Jul65 / ORIG REF: 014 / OTH REF: 009

MIKHAYLOV, V.V., kand. tekhn. nauk, dotsent; NECHITAYLOV, V.V., inzh.

Analysis of methods for increasing the sensitivity of the
starting devices of distance-type protection systems. Izv.
vys. ucheb. zav.; energ. 8 no.7:1-6 J1 '65. (MIRA 18:9)

1. Novocherkasskiy politekhnicheskiy institut imeni S.
Ordzhonikidze. Predstavlena kafedroy elektricheskikh stantsiy.

L 56538-65 EED-2/EWT(d)/T/EWP(1) Pg-4/Pk-4/Pq-4 IJP(c) BB/GG

ACCESSION NR: AP5016769

UR/0286/65/000/010/0085/0085

681.142

35
B

AUTHOR: Ignat'yev, M. B.; Mikhaylov, V. V.

TITLE: A method for checking and correcting a computer which reproduces a given function. Class 42, No. 171174

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 10, 1965, 85

TOPIC TAGS: computer component, computer control

16C

ABSTRACT: This Author's Certificate introduces a method for checking and correcting a computer which reproduces a given function. The function is given as the intersection of a multidimensional surface by other multidimensional surfaces (e.g. orthogonal planes) whose equations are used as control equations. The equations which reproduce all these surfaces are solved simultaneously on the computer. Fulfillment of the control equations is used as a check for accuracy of the solution, and the computer is corrected according to the discrepancy in the control equations.

ASSOCIATION: none

L 56538-65

ACCESSION NR: AP5016769

SUBMITTED: 23Ju162

ENCL: 00

SUB CODE: DP

NR REF SOV: 000

OTHER: 000

Card ^{7/8} 2/2

L 13138-66 EWT(1)/EWA(h)

ACC NR: AP6006715

SOURCE CODE: UR/0105/65/000/012/0034/0039

AUTHOR: Il'inskiy, N. F. (Candidate of technical sciences); Mikhaylov, V.V. (Engr.)

ORG: Moscow Power Institute (Moskovskiy energeticheskiy institut)

TITLE: Static and dynamic states of a two-phase transistorized frequency
converter 25

SOURCE: Elektrichestvo, no.12, 1965, 34-39

TOPIC TAGS: frequency converter, transistorized oscillator, transistor, electronic circuit 43 B

ABSTRACT: An analysis of the principle of operation, the static and dynamic operating states of a transistorized converter for converting continuous signals to a multiphased pulse system whose repetition rate and relative phase shift may be changed independently as a function of the two dc signals. The circuit consists of two similar single-phase converters. The transistors T_a and T_b of each of these converters sequentially connect to the power supply E one half of the primary windings of the output transformers, causing emf's of various polarity to arise in all the other windings. Switching of the transistors determines the frequency of the output

Card 1/2

UDC: 621.337.6

L 13138-66

ACC NR: AP6006715

pulses and is caused by a reduction in base current of the open transformer until the transistor is unsaturated. Orig. art. has: 7 figures and 27 formulas.

SUB CODE: 09 / SUBM DATE: 24Jul65 / ORIG REF: 004

Card 2/2

HW

MIKHAYLOV, V.V., kand. tekhn. nauk; NECHITAYLOV, V.V., inzh.; SEMCHUKOV,
A.A., inzh.

Phase-limiting relay for increasing the stability of the start
components of distance-type protection systems. Elek. sta. 36
no.1:70-73 Ja '65. (MIRA 18:3)

ACC NR: AP6035703

(A, N)

SOURCE CODE: UR/0413/66/000/019/0051/0051

INVENTORS: Karinskiy, Yu. I.; Mikhaylov, V. V.

ORG: none

TITLE: A pulse relay for power direction. Class 21, No. 186555

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 51

TOPIC TAGS: electric power engineering, power monitor, power supply, electric relay

ABSTRACT: This Author Certificate presents a pulse relay for power direction. The relay operates on the principle of comparing the signs of the instantaneous values of the two quantities (current and voltage) at fixed instants of time. The relay includes a pulse shaper, a coincidence circuit, and an output device (see Fig. 1). To simplify the relay, the coincidence circuit and the output device are made with

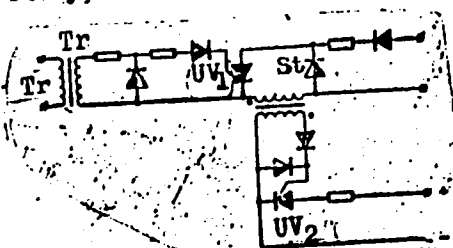


Fig. 1. T_r - pulse transformer; UV_1 and UV_2 - controlled rectifiers of the coincidence circuit and of the output device; S_t - stabilatron tube

UDC: 621.316.925.2 621.318.56.016.2

Card 1/2

ACC NR: AP6035703

controlled diodes. The coincidence circuit-controlled diode is fed a stabilized voltage from the protected object. This diode of the coincidence circuit is controlled by stabilized voltage pulses through a pulse transformer with a phase which is a function of the current phase of the protected object. Orig. art. has: 1 figure.

SUB CODE: 09/

SUBM DATE: 21May64

Card 2/2

ACC NR: AP7006049

SOURCE CODE: UR/0144/66/000/008/0910/0912

AUTHOR: Mikhaylov, V. V.; Korobeynikov, B. A.

ORG: none

TITLE: Dual-operation thyristor

SOURCE: IVUZ. Elektromekhanika, no. 8, 1966, 910-912

TOPIC TAGS: thyristor, pn junction, control circuit

ABSTRACT: Currently Soviet industry is organizing the fabrication of dual-operation thyristors which, as distinct from single-operation thyristors, can be disconnected by supplying a signal to the control electrode circuit. A thyristor of this kind contains four layers with alternating conductivity which form three p-n junctions. Low-power dual-operation thyristors can be used to further perfect the design of automatic devices. The newly produced thyristors of this kind, designed for a working current of up to 50 ma and a permissible disconnection current of up to 15 ma can be successfully used for this purpose. In these thyristors, the p_1 layer performs the functions of the anode A, and the n_2 layer, the functions of the cathode C. The control electrode is connected to the base p_2 . The central region, n_1 , is connected to the same ohmic anode con-

Card 1/2

UDC: 621.314.63+621.382.2

ACC NR: AP7006049

tact as the p_1 region. The use of dual-operation thyristors opens new vistas in automatic control and regulation engineering, by making it possible to simplify old and develop new circuits which will be qualitatively superior to their currently existing counterparts: e.g., a sawtooth voltage generator, a stabilized power supply source, a high-voltage pulse generator, various relay and switching circuits, etc. Orig. art. has: 3 figures. [JPRS: 38,694]

SUB CODE: 09

Card 2/2

MIKHAYLOV V. V.

PA 21/49T22

USSR/Electricity
Transformers - Circuits

Oct 48

"Equalizing the Load on Transformers Working in
Parallel," V. V. Mikhaylov, Engr, Baku, 1 p

"Prom Energet" No 10

Describes methods adopted at plant imeni Sverdlov,
with three diagrams.

21/49T22

1. MIKAYLOV, V. V., Eng.
2. USSR (600)
4. Reactance (Electricity)
7. Installation of 35-kilowatt current-control reactors, Rab. energ. 3, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

MIKHAYLOV, V. V.

Determining the economical operation of transformers. Energ. biul. no.6:
13-18 Je '53. (MLRA 6:6)

(Electric transformers)

MIKHAYLOV, V.V.

Calculations for electric transmission line supports built in the sea.
Energ.biul. no.8:22-26 Ag '53. (MLRA 6:8)
(Electric lines)

MIKHAILOV, V. V.

Battelle Technical Review
July, 1954
Electrical Engineering

(2)
~~9480~~ Differential Protection of Saturable Transformers
by Additional Magnetization. (Russian.) A. D. Drzdoz and
V. V. Mikhailov. *Elektrichestvo*, 1953, no. 11, Nov., p. 40-44.
Necessary characteristics obtained with certain parameters and
circuits. Transformer protection through increased sensitivity.
Diagrams, graphs.

9-27-54 *js*

Novocherkassk Polytechnic Inst.-ins. Ordzhonikidze

MIKHAYLOV, V.V.

Determining the capacity of an aerial transmission line crossing the
sea. Energ.biul. no.5:16-22 My '54. (MLRA 7:5)
(Electric lines--Overhead)

MIKHAYLOV, V. V.

AID P - 807

Subject : USSR/Electricity
Card 1/1 Pub. 28 - 6/7
Author : Mikhaylov, V. V.
Title : Resistance of marine electric power transmission line
Periodical : Energ. byul., #8, 25-29, Ag 1954
Abstract : A theoretical solution is presented for transmission lines suspended above the sea level. The line is grounded to the sea. The non-symmetrical conditions of work of transmission system is also analysed with consideration of direct, return and zero sequences, computed on conventional formulas. Reactance of zero sequence is found to be dependent upon the depth of the sea and the conductivity of sea water. One chart, 1 table and 3 Russian references (1932-1952).
Institution : None
Submitted : No date

Михайлов, В. В.

AID P - 1316

Subject : USSR/Engineering

Card 1/1 Pub. 28 - 5/7

Author : Mikhailov, V. V.

Title : Determination of pressure of sea waves on foundations of electric power lines at depths below the critical

Periodical : Energ. byul., #12, 24-28, D 1954

Abstract : The author discusses various methods for determining the critical sea depth for maximum wave striking force on the projected body. The discussion is illustrated by seven charts constructed on the basis of experimental data. Three Russian references (1939-1949).

Institution : TsAGI (Central Aero-Hydrodynamical Institute)

Submitted : No date

MIKHAYLOV, V. V.

AID P - 2384

Subject : USSR/Engineering

Card 1/1 Pub. 28 - 5/7

Author : Mikhaylov, V. V.

Title : ~~On selection of anti-corrosion protective measures for marine structures~~
On selection of anti-corrosion protective measures for marine structures

Periodical : Energ. byul. 7, 26-28, J1 1955

Abstract : The speed of corrosion of marine structures depends not only on their setting, i.e. whether the metal is or is not under water and splashed by sea sprays, but also on the distribution of tension within the metal construction itself under variable circumstances. The author elaborates this idea with some mathematical formulae, and agrees that bitumen provides sufficient protection for piles in marine electric power transmission lines.

Institution: State Institute for the Planning of offshore Petroleum Production (Gipromorneft'); All-Union Trust for Marine Projects (Soyuzmorproekt).

Submitted : No date

Mikhaylov, V. V.
AID P - 3987

Subject : USSR/Engineering-Electricity
Card 1/1 Pub. 28 - 5/11
Authors : Kozlova, V. F. and Mikhaylov, V. V.
Title : Simplified Multi-impulse signal control circuit.
Periodical : Energ. byul., 12, 16-19, D 1955
Abstract : The rapidly increasing use of modern machinery and equipment in the oil fields presents the problem of their efficient operation and control. The authors describe a simple and reliable system of relays for simultaneous automatic control of operation of numerous installations. One drawing.
Institution : The Scientific Research Department of the State Institute for Implementation of Projects (NIS Gipproekt), the originator of the system.
Submitted : No date.

MIKHAYLOV, Vasil'y Vasil'yevich

N/5
663
.M61
1955

Raschet i konstruirovaniye vysokovol'tnoy apparatury (Design and construction of high voltage apparatus) Izd. 2, dop. Moskva, Gosenergoizdat, 1955.

272 p. diagrs., tables.
"Literatura": p. 271-272.

MIKHAYLOV, V. V.

Min Higher Education USSR. Azerbaydzhan Order of Labor Red Banner Industrial Inst
imeni N. Azizbekov

MIKHAYLOV, V. V.- "Electric-power transmission lines over the sea." Min Higher Education
USSR. Azerbaydzhan Order of Labor Red Banner Industrial Inst imeni N. Azizbekov.
Baku, 1956.
(Dissertation for the Degree of Candidate in Technical Sciences.)

SO: Knizhnaya Letopis' No. 13, 1956.

MIKHAYLOV, V. V.

DROZDOV, A.D., dotsent, kandidat tekhnicheskikh nauk; MIKHAYLOV, V.V.,
dotsent, kandidat tekhnicheskikh nauk.

High-speed differential relays. Trudy NPI 33:85-92 '56. (MIRA 13:9)
(Electric relays)

~~MIKHAYLOV, N. N.~~

Selecting wire cross sections for lines with several loads. Energ.
biul. no.8:1-3 Ag '57. (MIRA 10:8)
(Electric lines)

LOGANSON, N.Ye., inzh.; KOZLOVA, V.F., inzh.; MIKHAYLOV, V.V., kand.tekhn.nauk

Testing the a.c. protection for generators. Elek. sta. 29 no.7:52-54
Jl '58. (MIRA 11:10)

(Electric generators)

MIKHAYLOV, V.V., kand. tekhn. nauk

Relay signaling contact to ground in excitation circuits of
hydraulic generators. Elek.sta. 29 no.9:50-52 S '58.
(Electric relays) (Electric generators) (MIRA 11:11)

AUTHOR: ~~Mikhaylov, V. V.~~, Candidate of Technical Sciences SOV/105-58-9-23/34

TITLE: Protection of Crane Installations (K voprosu o zashchite kranovykh ustanovok)

PERIODICAL: Elektrichestvo, 1958, ~~№~~ Nr 9, pp 86 - 86 (USSR)

ABSTRACT: Protection of contact conductors in case of a rupture of one of the conducting wires in crane installations may be carried out simpler, than this has been proposed by M.M.Sokolov and Yu.D.Kapuntsov (Elektrichestvo, 1957, Nr 10), namely by the use of the standard three-phase voltage relay of type E-511 for the rated voltages of 100, 220, and 380 volts (manufacturer: Kiyev works for relays and control equipment). The circuit diagram is given, and it is shown that in case of a rupture of conducting wires it will be sufficient to connect an E-511 relay of appropriate voltage at the end of the contact wires, and also the contactor trip coil over the normally closed 1 R₁ relay contact (In 1 R₁ etc., 1 means relay Nr 1,

Card 1/2

while by the subscript 1 the contact Nr 1 of this relay is

Protection of Crane Installations

SOV/105-58-9-23/34

denoted). The E-511 relay is a component consisting of the two relays 1 R and 2 R). The normally open 1 R₂ contact can be used for signalling rupture of contact wires. This circuit may be even more simplified, using the 2R relay only. In this case the 1 R relay is no longer incorporated in the E-511 relay, and the contactor trip coil is connected over the 2 R₁ contact of the auxiliary relay. There is 1 figure.

Card 2/2

MIKHAYLOV, V.V., kand.tekhn.nauk

Consideration of transformer losses in the synthesis of the operating
characteristics of hydroelectric power stations. Elek.sta. 32
no.8:56-57 Ag '61. (MIRA 14:10)
(Hydroelectric power stations)

KOZLOVA, V.F., inzh.; MIKHAYLOV, V.V., kand.tekhn.nauk; SILKINA, M.F., inzh.

Control of automatic field quenching devices using the excitation
system of a synchronous generator. Elek. sta. 33 no.4:48-51
Ap '62. (MIRA 15:8)

(Electric generators) (Electric power distribution)

MIKHAYLOV, V.V., kand.tekhn.nauk

Concerning the decrease of the calculated angular velocity of
hydraulic devices. Elek. sta. 33 no.6:84-85 Jo '62.

(MIRA 15:7)

(Turbogenerators)

MIKHAYLOV, V.V., kand.tekhn.nauk

Mechanical design of electric power transmission line towers
passing through a sea. Elek. sta. 33 no.8:50-54 Ag '62.
(MIRA 15:8)

(Electric lines--Poles and towers)

BABIKOV, Maksim Alekseyevich; MIKHAYLOV, V.V. [deceased], red.;
LARIONOV, G.Ye., tekhn. red.

[Electrical apparatus] Elektricheskie apparaty. Moskva,
Gosenergoizdat. Pt.3. [Electrical apparatus of high-voltage
power systems] Elektricheskie apparaty elektroenergeticheskikh
sistem vysokogo napriazheniia. 1963. 735 p. (MIRA 16:10)
(Electric transformers) (Electric switchgear)
(Electric insulators and insulation)

MIKHAYLOV, Vladimir Vladimirovich, kand. tekhn. nauk, dotsent;
NECHITAYLOV, Viktor Vladimirovich, inzh.

Blocking induction relay for increasing the sensitivity of
the start components of distance-type protection systems.
Izv. vys. ucheb. zav.; elektromekh. 6 no.12:1373-1379 '63.
(MIRA 17:1)

1. Kafedra elektricheskikh stantsiy, setey i sistem Novo-
cherkasskogo politekhnicheskogo instituta.

MIKHAYLOV, V.V., kand.tekhn.nauk; PLATONOV, V.V., inzh.; IVANKOV, Yu.I., inzh.

Increasing of the sensitivity of the starting devices of distance-
type systems. Elek. sta. 34 no.6:65-68 Je '63. (MIRA 16:9)
(Electric protection) (Electric power distribution)

RAZHEV, Mikhail Mikhaylovich; MIKHAYLOV, Vladimir Vasil'yevich; KOVALENKO,
Yefim Pavlovich; SOSHDOR, O.O.; ~~redaktor~~; ~~PRISHCHENKIN~~Y, V.N.,
redaktor izdatel'stva; EVENSON, I.M., tekhnicheskiy redaktor

[Mine tunneling by speed-up methods] Prokhodka goraykh vyrabotok
skorostnymi metodami. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry
po cherno i tsvetnoi metallurgii, 1956. 99 p. (MIRA 10:1)
(Mining engineering)

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,
pp 140-141 (USSR) 15-57-5-6660

AUTHOR: Mikhaylov, V. V.

TITLE: Coal Potential of Middle Asia as Exemplified by
Fergana Region and Other Areas (Voprosy prognoza
uglenosnosti Sredney Azii na primere Fergany i
drugikh rayonov)

PERIODICAL: Tr. Labor. geol. uglya, AN SSSR, 1956, Nr 6, pp 499-
506

ABSTRACT: It has recently been established that the Jurassic
coal deposits in the northern and northeastern parts
of Middle Asia are continental and that they developed
in the lowland parts of the pre-Jurassic relief. All
known deposits of coal of Middle Asia are located
along the southern and northern boundaries of a vast
inter-mountain depression bounded on both sides with

Card 1/2

15-57-5-6660

Coal Potential of Middle Asia (Cont.)

Paleozoic mountain ranges. The eastern part of the depression is represented by the Fergana plain; the western part consists of broad lowlands stretching from the Ursat'yevskaya station on the northwest to the cities of Dzhizak and Chimkent. The greater part of the coal deposits now being developed are associated with the peripheral parts and the northern boundary of the depression. All of the peripheral parts have an industrial coal potential. Drilling tests of the last few years indicate that the central parts of the depression also have a coal potential. Thus the region of Jurassic coal development apparently embraced the territory of the Fergana syncline, the Angren-Tashkent and Tashkent-Lenger-Kel'temashatskiy areas; it went beyond their borders into the Urals area, the Karatau area, and the Chuya depression. The author believes new coal-bearing regions may be found in these areas. A preliminary map of the coal potential of Middle Asia is included.

Card 2/2

N. I. M.

MIKHAYLOV, V.V.; SHKARPETIN, V.V.

Study and improvement of a system of ore recovery by blasting
in the Mirgalinsay Mine. Stor. card. VNIISVETMET no. 4.5-19 '59.
(MIRA 16:8)

(Mirgalinsay region - mining engineering)
(Blasting)

SHABEL'NIKOV, G. P., kand.tekhn.nauk; MIKHAYLOV, V. V.; SHKARPETIN, V. V.

Fire-prevention measures in mining Tekeli deposits. Bezop.truda
v prom. 5 no.11:6-10 N '61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh
metallov.

(Tekeli region--Mining engineering)

MIKHAYLOV, V.V.

Activity of blood serum hexokinase in some diseases of the blood
system in children. Vop. gemat. v pediat. no.3:140-146 '64.
(MIRA 18:7)

MEDVEDEV, V.A.; YUNGMAN, V.S.; VOROB'YEV, A.F.; GURVICH, L.V.;
BERGMAN, G.A.; REZNITSKIY, L.A.; KOLESOV, V.P.;
GAL'CHENKO, G.L.; KHODEYEV, Yu.S.; KHACHKURUZOV, G.A.;
SOKOLOV, V.B.; GOROKHOV, L.N.; MONAYENKOVA, A.S.;
KOMAROVA, A.F.; VEYTS, I.V.; YURKOV, G.N.; MALENKOV, G.G.;
SMIRNOVA, N.L.; GLUSHKO, V.P., akademik, otv. red.;
MIKHAYLOV, V.V., red.; KARAPET'YANTS, M.Kh., red.

[Thermal constants of substances; reference book in ten
numbers] Termicheskie konstanty veshchestva; spravochnik
v desiati vypuskakh. Moskva, No.1. 1965. 144 p.
(MIRA 18:7)

1. Moscow. Vsesoyuznyy institut nauchnoy i tekhnicheskoy
informatsii.

KOSTERIN, Yu.I., kand.tekhn.nauk; BYSTROV, P.G.; MIKHAYLOV, V.V.

Some data on effective performance of motor-vehicle brake linings.
Avt.prom. 31 no.7:17-18 J1 '65. (MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorsko-
tekhnologicheskoy institut asbestovykh tekhnicheskikh izdeliy.

BORODIN, V.P., (Novosibirsk); VOYTSEKHOVSKIY, B.V. (Novosibirsk);
MIKHAYLOV, V.V. (Novosibirsk)

Use of the tensometric method in measuring high-speed
high-pressure pulsewise jets. PMTF no. 6:104-108 N-D '63.
(MIRA 17:7)

MIKHAYLOV, V. V. AND BARDIN, A. M.

"The Formation of Single Mesons by Gamma Quanta", Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol. 20, No. 12, 1950. pp. 1057-63

Phys Inst imeni Lebedev, Acad Sci USSR

A Digest W-17400, 21 Mar 1951

1ST AND 2ND ORDERS										10D AND 11M CODES									
PROCESSES AND PROPERTIES INDEX																			
N										5									
MIKHAYLOV, V.																			
1001																			
GENERATION OF NEUTRAL MESONS BY γ -QUANTA.																			
A. Baidin and V. Mikhailov. <i>Sov. Khim. i Teor. Fiz.</i>																			
31, 502-5(1964) Apr. (Letter to editor; in Russian)																			
Discrepancies between the theory of the generation of																			
neutral and positive mesons (Shreiner et al., <i>Phys. Rev.</i>																			
79, 187(1959)) and the experiment (Steinberger et al., <i>Phys.</i>																			
<i>Rev. T9, 682(1959)) can be explained by assuming that the</i>																			
<i>interaction between an electromagnetic field and a nucleus</i>																			
<i>is essentially an interaction between the field and an</i>																			
<i>anomalous magnetic moment, and that the observed</i>																			
<i>anomalous moment is due to mesons of various types. A</i>																			
<i>phenomenological examination of the problem shows that</i>																			
<i>only the pseudoscalar meson theory agrees with the</i>																			
<i>observations.</i>																			

ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION										E-2									
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MIKHAYLOV, V. V.

PA 187T71

USSR/Nuclear Physics - Mesons

Jun 51

"Formation of Mesons by Gamma-Quanta," A. M. Baldin, V. V. Mikhaylov

"Uspekh Fiz Nauk" Vol XLIV, No 2, pp 200-237

Survey of exptl creation of mesons, performed in US, especially by the synchrotron at Berkeley, California; and survey of theory from foreign (mostly US) sources: Phys Rev, 76-80; Science, 110, etc.

187T71

MIKHAYLOV, V.V.

Nuclear Science Abstracts
July 15, 1961
Physics

7
3
ANGULAR DISTRIBUTION OF PHOTOMESONS GENERATED
BY NUCLEI. A. M. Baldin and V. V. Mikhailov (Physics
Inst. im. P. M. Lavrenko). Zhur. Ekspil'. Teoret. Fiz. 22,
481- (1962) Oct. (In Russian)
The angular distribution of photomesons generated by nu-
clei was calculated for scalar and pseudoscalar mesons.
Reference is made to the theoretical investigation of the
formation of charged mesons with γ quanta (M. Lax and H.
Feshbach, Phys. Rev. 81, 189(1951)) in which an error was
made. (tr-auth)
111A

9-21-59

PM

BALDIN, A. M.; MIKHAYLOV, V. V.

"Collisions" (nuclear physics)

"Photon-production of ~~M~~ Mesons on Neutrons." Zhur. eksp. i teor. fiz. 23 No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

USSR/Nuclear Physics - Photo Production 1 May 52

"Photo Production of π^0 Mesons on Deuterons," V.V. Mikhaylov, A. M. Baldin

"Dok Ak Nauk SSSR" Vol LXXXIV, No 1, pp 47-49

Direct calcn of cross sections of photo production of neutral mesons on nucleons according to perturbation theory leads, even when higher orders are taken into account, to values of cross sections which are in sharp contrast with exptl results.

Qual consideration of this process leads to necessity of phenomenological introduction of electromagnetic interaction of the nucleon which is connected

224789

with its structure (such as the size of meson cloud, etc.). In this connection it is of interest to compute cross sections of photo production of π^0 mesons on deuterons. Submitted by ~~and~~ D. V. Skobel'tsyn 6 Feb 52.

224789

MIKHAYLOV, V.V.

MIKHAYLOV, V.

USSR.

PHOTOPRODUCTION OF MESONS IN THE THEORY OF
RADIATION DAMPING. V. Mikhailov and A. Baldin. Zhar.
Eksptl'. i Teoret. Fiz. 24, No. 5, 613-15(1953). (In Russian)

The usual perturbation theory predicts an approximately isotropic distribution of π^0 mesons, in contradiction with experiment. Calculations are carried through here with a symmetrical pseudoscalar coupling ($g^2/\hbar c \sim 1$) and yield results which are qualitatively in agreement with the experimental distribution, without destroying the previous agreement for the production of π^+ mesons. (Science Abstracts)

10m2 JH

MIKHAYLOV, V.

USSR.

530.145
 3101. On the two types of charge invariance.
 A. BALDIN AND V. MIKHAYLOV. Dokl. Akad.
 Nauk SSSR, 91, No. 3, 479-82 (1953) (in Russian).
 English translation, U.S. National Sci. Found. NSF,
 11-101.
 Discussing the photoproduction of π^0 mesons on
 deuterons, the authors show that the assumption of
 charge symmetry is sufficient for the formulation of
 selection rules for the reaction $\gamma + d \rightarrow \pi^0 + p$.
 Treating the interactions with the electromagnetic
 field as small, the interaction part of the Hamiltonian
 can, both for charge symmetry and charge independ-
 ence, be split into two parts, S and V , where S ,
 which depends only on the interaction of the electro-
 magnetic field with the nucleon charge, is invariant
 under a 180° rotation around the z -axis in isotopic
 spin space (i.s.), whereas V changes sign. From
 the general transformation properties of the transition
 matrix element it follows that the meson wave function
 can either be a scalar (ϕ_s) or a third vector component
 (ϕ_3) in i.s. If nucleon recoil effects are neglected,
 the process is forbidden for ϕ_s , but no such selection
 rule operates for ϕ_3 or for the alternative reaction
 $\gamma + d \rightarrow \pi^+ + p + \pi^-$. Taking recoil into account, the
 assumption $S \sim V$, μ/M (μ, M are the π^0 and
 nucleon mass resp.) leads to cross-sections for for-
 bidden processes ~ 40 times smaller than those for
 allowed ones. The general conclusions are independ-
 ent of any assumption regarding the strength of
 meson-nucleon coupling and the nature of the meson
 field. A result of this investigation is that $g_N = -g_p$
 does not imply charge independence, but merely
 proves charge symmetry. O. FIELD

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Phys. Inst. in Leningrad, AS
 USSR

RB
 Paul
 JAW

~~FAKHAYLOV, V.V.~~ *For 1 K. 11/17/57*

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1880
 AUTHOR BALDIN, A.M., MICHAILOV, V.V., RABINOVICH, M.S.
 TITLE The "Osculation" method for Investigations of the Free Oscillations in Accelerators.
 PERIODICAL Zhurn. eksp. i teor. fis., 31, fasc. 6, 992-1001 (1956)
 Issued: 1 / 1957

By means of the osculation theory worked out here the influence exercised by the free oscillations on the injection process and the acceleration in cyclic accelerators of any type can be described from a uniform point of view. The free oscillations in any magnetic field \vec{H} with a symmetry plane are studied. The lines of force are supposed to intersect a certain plane under a constant angle. From all possible orbits a closed one is separated, which is located on the aforementioned plane and is called "quilibrium orbit". The equation of free oscillations is $q'' + q(\sigma) = 0, q(\sigma) = R_0^{-2}(\sigma) [1 - n(\sigma)]$. Here $n(\sigma)$ is the index of the magnetic field: $n(\sigma) = - (R_0(\sigma)/H(\sigma, 0)) \cdot (\partial H(\sigma, q)/\partial q)_{q=0}$. Here σ denotes the length along the equilibrium orbit and q - the normal distance from this orbit. The solution of the aforementioned oscillation equation can also be written down in the following form:
 $q(\sigma) = F(\sigma) \cos [\mu\sigma/L + \alpha(\sigma)]$, $F(\sigma) = |D\varphi(\sigma)|$; $\alpha(\sigma) = \arg(D\varphi(\sigma))$. $F(\sigma)$ and $\alpha(\sigma)$ are periodic functions with the period L . The free oscillations can thus always be represented as sine functions with the variable amplitude $F(\sigma)$, the phase $\alpha(\sigma)$ and with the frequency μ/L . In the theory of

Zurn.eksp.i teor.fis,31,fasc.6,992-1001 (1956) CARD 2 / 2 PA - 1880

accelerators two problems are investigated when examining the free oscillations: a) the collision of particles with the injector plates, b) collision of particles with the walls of the vacuum chamber. q assumes practically any value of from $-F(\sigma)$ to $+F(\sigma)$ in the case of any azimuth. The curve $q = F(\sigma)$ can be considered as a tangent of the orbit of the particle. The orbit of the particle is enclosed between the curves $q = +F(\sigma)$ and, in the cases which are of interest in practice, it takes up the entire domain between the tangents after numerous cycles. The determination of the tangent is much more simple than the computation of the orbit of the particles. At the same time all principal problems of the theory of accelerators which are connected with free oscillations can be solved if the tangent is known. When solving the problem of a collision with the walls of the chamber it is necessary to examine the function $f(\sigma) = \Phi(\sigma) / \Phi(\sigma_1)$ which characterizes the ratio of the oscillation amplitudes at any azimuth and at the azimuth of the injector. These considerations are then specialized for an accelerator the magnets of which are cut apart as well as for accelerators with strong focussing.

INSTITUTION: Physical Institute "P.N.LEBEDEV" of the Academy of Science in the USSR

Mikhailov V.V.

Distr: 4E3a/4E4b

3939

THE METHOD OF ENVELOPES FOR INVESTIGATING
FREE OSCILLATIONS IN ACCELERATORS. A. M.

Baldin, V. V. Mikhailov, and M. B. Rabinovich (Academy
of Sciences, USSR). Soviet Phys. JETP 4, 857-64(1957)
July.

A derivation is given of the equation for free oscillations in accelerators with an arbitrary magnetic field having a plane of symmetry. To solve the basic problems of the theory of free oscillations, which arise in the design of accelerators, an envelope method has been developed in which the study of individual orbits is replaced by consideration of the envelope of the trajectory of the particles over a large number of revolutions. The application of the method is illustrated for accelerators with a sector magnet and for strong-focusing accelerators. (auth)

5
1-RML
2

RR 11

KARGIN, V.A., akademik; NEYMAN, M.B., prof.; BUCHACHENKO, A.L.,
kand. khim. nauk; MIKHAYLOV, V.V.; MASLOVA, I.P.;
LUKOVNIKOV, A.F., kand. khim. nauk; MATVEYEVA, Ye.N.;
BERLIN, A.A., prof.; YANOVSKIY, D.M., kand. khim. nauk;
POPOVA, Z.V., kand. khim. nauk; LEVANTOVSKAYA, I.I.;
KOVARSKAYA, B.M., kand. khim. nauk; ANDRIANOV, K.A., prof.;
KUZ'MINSKIY, A.S., prof.; SLONIMSKIY, G.L., prof.; MAKUNI,
Ye.B., tekhn. red.

[Aging and stabilization of polymers] Starenie i stabili-
zatsiia polimerov. Moskva, Izd-vo "Nauka," 1964. 330 p.
(MIRA 17:3)

1. Akademiya nauk SSSR. Institut khimicheskoy fiziki.
2. Chlen-korrespondent AN SSSR (for Andrianov).

L 27238-65 EMT(1)/EWA(h) Feb GS

ACCESSION NR: AT5003912

8/0000/64/000/000/0160/0171

AUTHOR: Ignat'yev, M. B.; Mikhaylov, V. V.

TITLE: Concerning one method of checking and correcting differential analyzers that generate specified functions

SOURCE: Vsesoyuznaya konferentsiya - seminar po teorii i metodam matematicheskogo modelirovaniya. 3d, 1962. Vychislitel'naya tekhnika v upravlenii (Computer technology in control engineering); sbornik trudov konferentsii. Moscow, Izd-vo Nauka, 1964, 160-171

TOPIC TAGS: differential analyzer, function generator, error correction, error detection

ABSTRACT: A method is proposed for checking both parallel and sequential computers. It is based on the assumption that the specified function is the projection of the intersection of multidimensional surfaces, with the correction of the construction of the simplest of these surfaces giving an indication of the correction of the solution of the problem as a whole. The method is illustrated with the generalization of the equation for a circle by means of an integrating computer. In this

Card 1/2

L 2174-66 EWT(1)/FCC GW

ACCESSION NR: AP5022918

UR/0362/65/001/009/0929/0940
551.521.31

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B

AUTHOR: Kondrat'yev, K. Ya.; Burgova, M. P.; Mikhaylov, V. V.; Grishechkin, V. S.
44.55 44.55 44.55 44.55

TITLE: Spectral composition of shortwave solar radiation

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 9, 1965, 929-940

TOPIC TAGS: atmospheric transparency, solar spectrum, spectrophotometer, solar radiation scattering, direct solar radiation

ABSTRACT: The article continues an extensive experimental study of the shortwave radiation field at the level of the Earth's surface; it discusses a technique for measuring the spectral fluxes of total and scattered radiation in absolute energy units. The absolute calibration of the spectrophotometer used for the visible portion of the spectrum is described. Results of expeditionary measurements of spectral fluxes of direct, scattered, and total radiation are given, as are the spectral transparency of the atmosphere and spectral brightness of the sky in the 0.3-0.95 μ range. A preliminary analysis of the applicability of approximate calculated data to the description of the shortwave radiation field is presented.

Card 1/2

L 2174-66
ACCESSION NR: AP5022918

"The authors take this opportunity to express their thanks to G. F. Sitnik."
Orig. art. has: 11 figures, 5 tables, and 17 formulas. *44, 55*

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University) *44, 55*

SUBMITTED: 19Feb65

ENCL: 00

SUB CODE: AA, ES, OP

NO REF SOV: 010

OTHER: 003

dg
Card 2/2

GRUZINOV, V.K., akademik; MIKHAYLOV, V.V., akademik; KHODAK, L.F., kand.
tekhn.nauk; MIKHAYLOV, S.V.; RAKHIMOV, A.R.; NIKITIN, G.M.

Utilization of the brown ores of the Lisakov deposit. Vest.
AN Kazakh. SSR 21 no.11:9-13 N '65.

(MIRA 18:12)

1. Akademiya nauk Kazakhskoy SSR (for Gruzinov, Mikhaylov, V.V.).

L 21731-66 EWT(1)/FCC GW
ACC NR: AT6007618

SOURCE CODE: UR/2960/65/000/003/0154/0159

AUTHOR: Mikhaylov, V. V.

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: A double monochromator ^{12.4.85} with a new optical system
21,

SOURCE: Leningrad. Universitet. Problemy fiziki atmosfery, no. 3, 1965, 154-159

TOPIC TAGS: monochromator, diffraction grating, reflector diffraction grating, light dispersion, optic resolution, ir spectrum, uv spectrum, spectral line

ABSTRACT: A double monochromator with summation of dispersion, in which the residual coma and residual effect of astigmatism of the individual monochromators are almost entirely absent, is described (see Fig. 1). The new system consists of four concave mirrors with identical focal lengths f , two plane reflecting diffraction gratings with identical spacing d oriented so that the dispersions of the individual monochromators are added, and three slits with blades parallel to the plane of the figure. The presence of astigmatism does not affect the resolution, since each point of the input slit is represented by sagittal rays in the form of a segment that coincides with the direction of the output slit (unlike

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L 21731-66
ACC NR: AT6007618

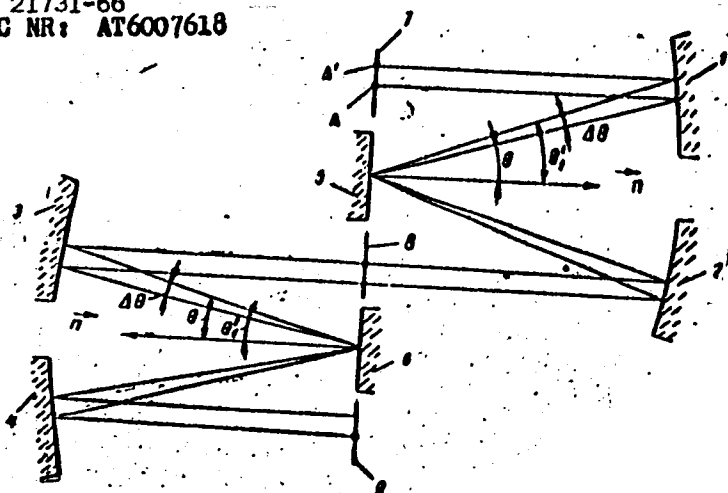


Fig. 1. Double monochromator: 1, 2, 3, 4 - focusing lenses; 5, 6 - diffraction gratings; 7 - input slit; 8 - middle slit; 9 - output slit.

in the Ebert-Fast system, where this segment is tangent to a curved slit). The dependence

$$\Delta\beta = \frac{\Delta\lambda}{d \cos \theta} \left[\frac{1}{\cos(\theta + \Delta\theta)} + \frac{1}{\cos(\theta - \Delta\theta)} - \frac{2}{\cos \theta} \right]$$

characterizes the curvature of the spectral line in the plane of the output slit

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L 21731-66
ACC NR: AT6007618

of the instrument. The broadening of the spectral interval, due to curvature of the spectral line when straight slits are used, is expressed by

$$\Delta\lambda = \lambda \Delta\theta \left(\frac{1}{2} + \operatorname{tg}^2\theta \right).$$

The obtained conclusions were confirmed by study of a mock-up. Orig. art. has: 1 diagram and 9 formulas.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 001

Card 3/3

L 20727-66 EWA(h)/EWP(k)/EWT(d)/EWT(m)/ETC(m)-6/EWP(w)/EWP(v) IJP(c) EM/WW
 ACC NR: AR6006203 SOURCE CODE: UR/0124/55/000/010/V013/V013

AUTHOR: Mikhaylov, V.V.

ORG: none

26 26 46 B
 TITLE: Determination of the lower critical load for a conic shell in longitudinal compression 26

SOURCE: Ref. zh. Mekhanika, Abs. 10V109

REF SOURCE: Vestn. Khar'kovsk. un-ta. Ser. mekhan.-matem, no. 3, 1965, 94-100

TOPIC TAGS: shell theory, shell deformation, static load test

TRANSLATION: The lower critical load of a thin, circular, right conic shell under conditions of uniform longitudinal compression is determined. It is assumed that the postcritical condition is reached mainly via geometrical bending. In view of this, the surface which is isometric to the undeformed middle surface is studied. The isometric surface consists of 2 n cylindrical surfaces, the generatrices of which are perpendicular to n planes of symmetry; their number is equal to the number of surfaces originating at the moment of stability loss. For one cylindrical part the energy of deformation is also calculated (Pogorelov, A.V. Contribution to the theory of convex elastic shells in the supercritical stage. Kharkov, Kharkov University, 1960). The effect of conicity on the lower critical load is investigated.

SUB CODE: 20,13

Card 1/1 2

I 22813-66 EWT(1)/EWP(m)/EWT(m)/EWA(d)/T/EWA(h) WW/JW/WE

ACC NR: AP6011500

SOURCE CODE: UR/0414/65/000/004/0020/0023

AUTHOR: Mikhaylov, V. V. (Novosibirsk); Topchiyan, M. Ye. (Novosibirsk) 47
B

ORG: none

TITLE: Study of continuous detonation in an annular duct 1, 55, 44

SOURCE: Fizika goreniya i vzryva, no. 4, 1965, 20-23

TOPIC TAGS: combustion, detonation, gas combustion, supersonic conductor 11, 11, 11

ABSTRACT: Previous studies by Voytsekhovskiy showed that combustible gas mixtures can be burned by a continuous detonation process in an annular duct at velocities 50 times greater than normal burning velocities. To study this phenomenon in greater detail, the present investigation was made in two ducts with inner diameters of 250 and 170 mm, which were equipped for Toepler photography. The velocity of the flame propagation was measured by time-resolved photography of the detonation "heads." It was found that as the number of heads decreases, the velocity increases. Thus, a six head detonation had a velocity of 749 m/sec while a three head detonation had a speed of 918 m/sec. In all cases studied, a triangular luminous zone was observed in the vicinity of the outer duct wall. Pressure measurements with piezoelectric pickups showed that at the outer wall pressure jumps of 3-4 mm Hg occur, while at the inner wall the pressure distribution is continuous. Theoretically, this pressure jump

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UDC: 534.222.2

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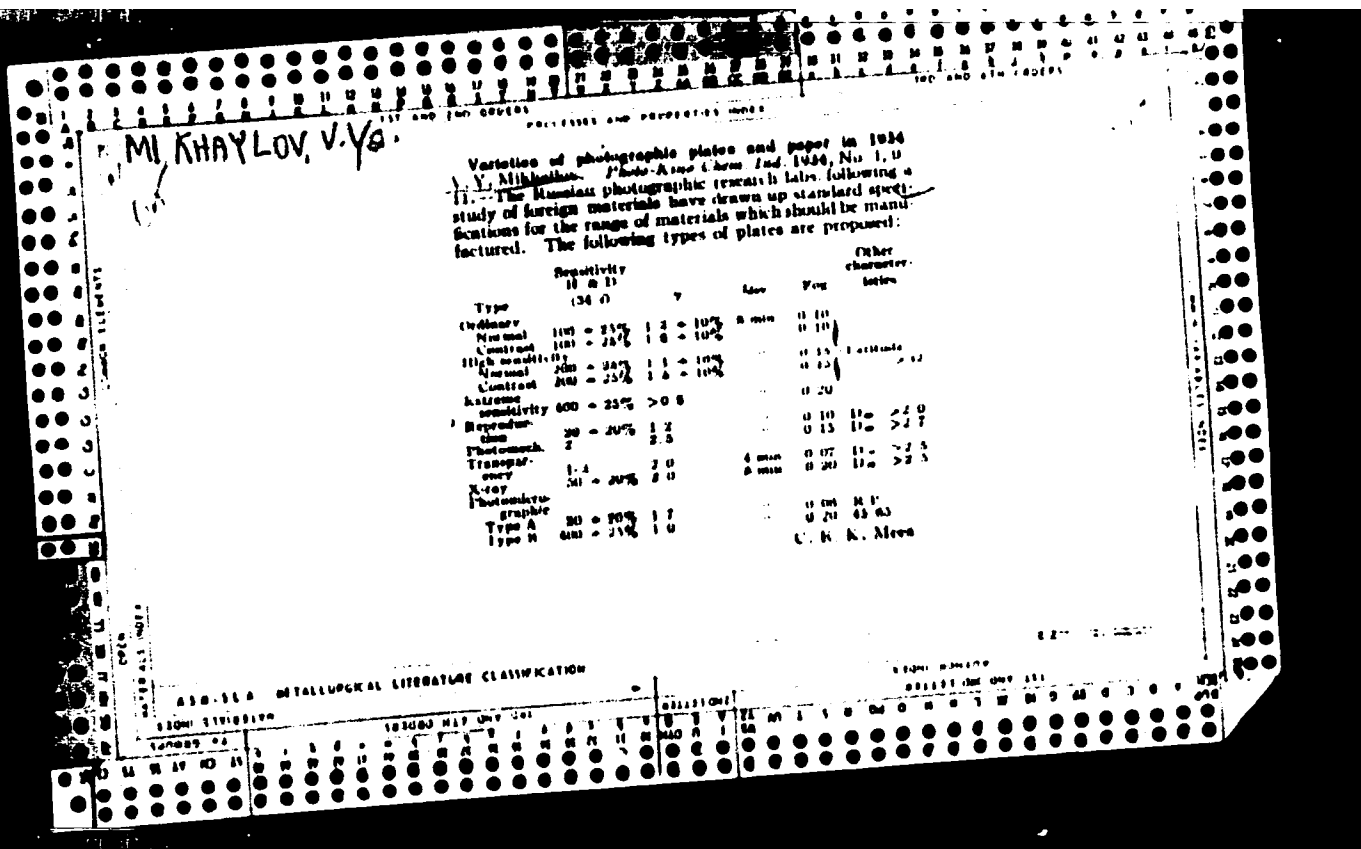
ACC NR: AP6011500

would correspond to an angle of 30—35° between the shock front and the flow direction however, experimental observations showed an angle of about 20—30°. Orig. art. has: 7 figures. [PV]

SUB CODE: 21/ SUBM DATE: 18Jun65/ ORIG REF: 007/ ATD PRESS: 4229

Card 2/2 *du*

1ST AND 2ND DEGREE										3RD AND 4TH DEGREE									
PROCESSES AND PREPARATION WORK																			
<p><i>Influence of washing on the light-sensitivity of silver halide emulsions. V. V. Mikhailov. Photo-Arch Chem. Ind. 1955, No. 4, 51-5.—A systematic account is presented of the influence of shredding, acidity, salt content, temp., etc., on the washing of Ag halide emulsions. The conclusions drawn agree with normal practice.</i></p> <p style="text-align: right;">C. E. K. Mervin</p>																			
<p>ASB-SLA DETAILING LITERATURE CLASSIFICATION</p>																			
1ST DIVISION										2ND DIVISION									
SUBDIVISION										SUBDIVISION									
CLASSIFIED										CLASSIFIED									



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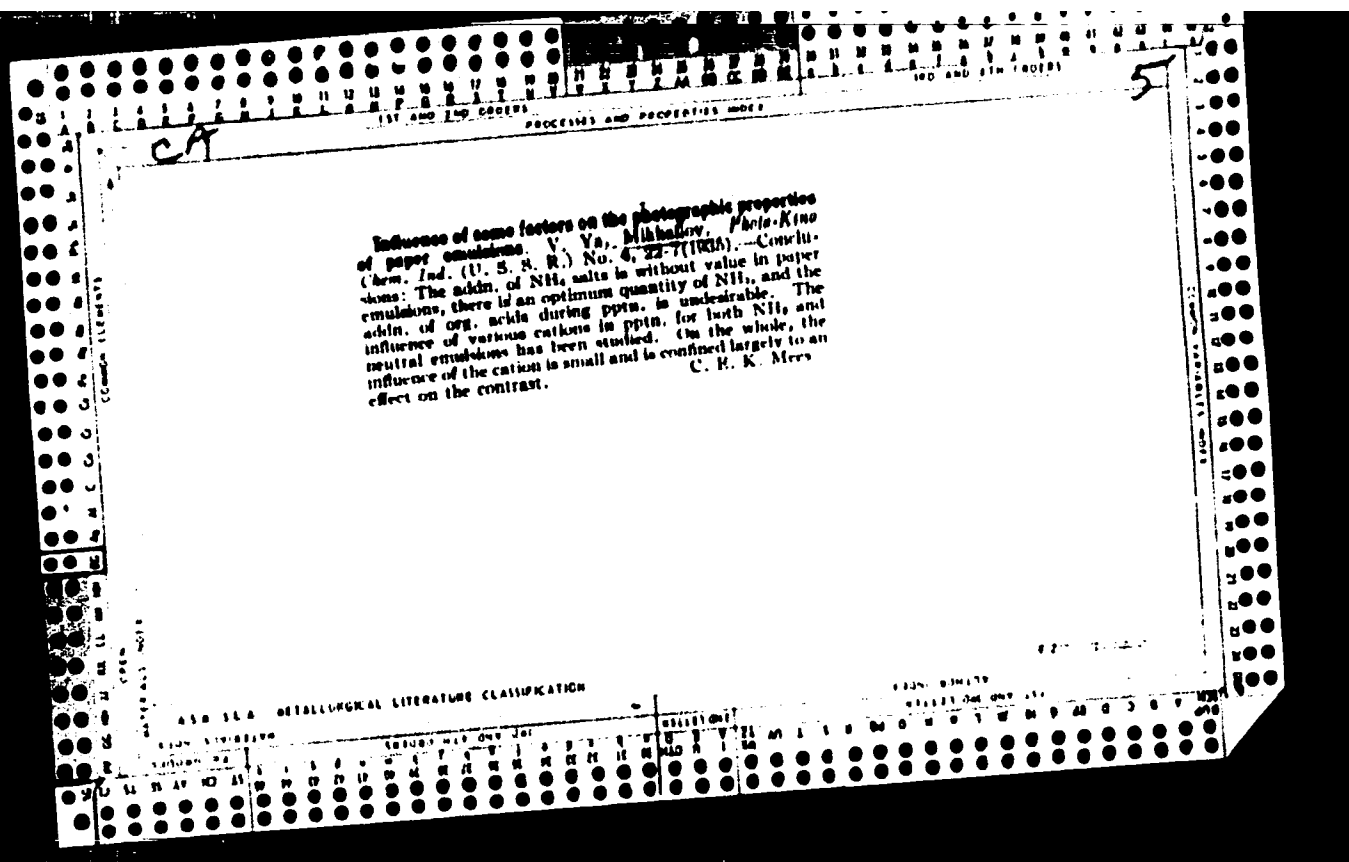
Quality of Soviet raw films. V. Y. Mikhailov and A. G. Shkulin. *Soviet Kino Photo Ind.* No. 7, 34-7(1958).—A general article in which a no. of sensitometric figures are given and also on account of the causes of waste in the raw-film factories. The waste in one factory was 1.6% of the output, while in another factory (which, however, is making a no. of new films) it was 3.5%. C. E. K. Mees

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

5

The stabilization of photographic light-sensitive materials. V. Ya. Mikhailov. *Photo-Kemo Chem Ind.* (U. S. R.) No. 3, 18-27(1935). Conclusions: (1) Aging is a chem. ripening of the emulsion dependent on the keeping conditions. (2) The aging depends on the peculiarities of the emulsion and the base. (3) The packing and conditions of storage are very important. (4) For an emulsion which tends to age too rapidly, the following measures are recommended: (a) Choice of a gelatin of low reducing power. (b) The adjustment of the 1st and 2nd ripening so that the emulsion is not pushed too far. (c) A shortening of the washing. (d) Shortening of all operations tending to ripen the emulsion. (e) The introduction of KBr before the 2nd ripening. (f) The introduction of org. sensitizers, of which acetanilide is strongly recommended. (5) Where aging is largely due to the influence of the base, it is recommended: (a) to keep the acidity of the substratum to a min. and (b) to use neutralizing agents, such as NaHCO₃, in the emulsion.
C. E. K. Mees

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

Production of silver chloride (photographic) paper. V. A. Klyukhina and E. I. Klyukhova. Kirovskikh. 1970

Ya. Mikhailov and E. I. Kiyemova.
Zh. Prikl. Khim., 1939, No. 11, 40-8; *Khim. Referat. Zhur.*, 1939.
From 1939, No. 11, 40-8; *Khim. Referat. Zhur.*, 1939.
No. 7, 127-8. Two methods for the production of contrast and supercontrast AgCl emulsions for photographic papers were developed and the effects of some substances on the photographic properties of emulsions were determined. The emulsions were prepared from 5% solutions of AgNO₃ and a 10% excess of NaCl. The sensitivity ($S_0 = 1$) of the emulsion was 17-42 and $\gamma = 1$ (for 1 min. development). To avoid dichroism the effect of the inactivation of gelatin by 6 methods on the dichroic fog was investigated. Positive results were not obtained. Formaldehyde-cystine was added to the emulsion as an intensifier for the same purpose. It produced a sharp desensitizing effect. The effect of the following org. compds. on the change in tone of the AgCl papers was investigated: benzimidazole (I), methylbenzimidazole (II), methylbenzothiazole (III), methylbenzoxazole (IV) and chlorobenzothiazole (V). These compds. were introduced during the emulsification. During pouring or into the developer. I, III, IV and V produced a change in tone of the paper, I, II, and III increased the light-sensitivity by 20-50%, IV and V decreased the light-sensitivity. II and V increased the contrast considerably and I and V decreased fog. I produced the most favorable effect. The method for the production of AgCl emulsions which was proposed by Seigmann (C. A. 31, 2389) was verified and a method for AgCl emulsion (cont. CdCl₂ and blood albumin as antisensitizer) was

developed. The emulsion prep'd. by the proposed method had the following indexes: $S_0 = 0.1 = (100/300)$, $\gamma_{\text{max}} = 3.2-4.0$ and $\log = 0.01-0.03$. The effect of the following stabilizers on the given emulsion was investigated: methyllenethiothiazole (a), chlorobenzothiazole (b), formaldehyde-cysteine (c), K. citrate (d), NaCl (e) and HCl (f). Best results were obtained from b, c and f. c desensitized the emulsion sharply, but simultaneously it increased the contrast. Expts. performed with 28 grades of gelatin showed that the degree of activity of the gelatin used did not affect the final properties of the emulsion. In order to increase the contrast of the emulsion and to decrease the undersensitive region the effects of several desensitizers, including NH_4 vanadate, CuCl_2 and other chlorides, were investigated. A max. effect was obtained from NH_4 vanadate when it was introduced before the emulsification.

W. R. Henn

W. R. Hunt

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